Dentists can identify undiagnosed diabetes

In a recent study, “Identification of unrecognized diabetes and pre-diabetes in a dental setting,” in the Journal of Dental Research, researchers at Columbia University College of Dental Medicine found that dental visits represented a chance to intervene in the diabetes epidemic by identifying individuals with diabetes or pre-diabetes who are unaware of their condition. The study sought to develop and evaluate an identification protocol for high blood sugar levels in dental patients and was supported by a research grant from Colgate-Palmolive. The authors report no potential financial or other conflicts.

“Periodontal disease is an early complication of diabetes, and about 70 percent of U.S. adults see a dentist at least once a year,” said Dr. Ira Lamster, dean of the College of Dental Medicine, and senior author on the paper. “Prior research focused on identification strategies relevant to medical settings. Oral health-care workers to assess and compare the performance of several potential identification protocols, patients returned for a fasting plasma glucose test, which indicates whether an individual has diabetes or pre-diabetes.

Researchers found that in this at-risk dental population, a simple algorithm composed of only two dental parameters (number of missing teeth and percentage of deep periodontal pockets) was effective in identifying patients with unrecognized pre-diabetes or diabetes. The addition of the point-of-care A1c test was of significant value, further improving the performance of this algorithm.

“Early recognition of diabetes has been the focus of efforts from medical and public health colleagues for years, as early treatment of affected individuals can limit the development of many serious complications,” said Dr. Evanthia Lalla, an associate professor at the College of Dental Medicine, and the lead author on the paper. “Relatively simple lifestyle changes in pre-diabetic individuals can prevent progression to frank diabetes, so identifying this group of individuals is also important. Our study sought to develop and evaluate an identification protocol for high blood sugar levels in dental patients and was supported by a research grant from Colgate-Palmolive. The authors report no potential financial or other conflicts.

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findings provide a simple approach that can be easily used in all dental care settings.

Other authors who contributed are: Dr. Carol Kunzel, associate clinical professor at the College of Dental Medicine and at Columbia’s Mailman School of Public Health; Dr. Sandra Burkett, at the College of Dental Medicine; and Dr. Bin Cheng, an assistant professor in the Department of Biostatistics at the Mailman School of Public Health.

According to the Centers for Disease Control and Prevention, one in four people in the United States affected with type 2 diabetes remains undiagnosed. And those with pre-diabetes are at an increased risk for type 2 diabetes and also for heart disease, stroke and other vascular conditions typical of individuals with diabetes.

Citation

The Columbia University College of Dental Medicine (CDM) was established in 1916 as the School of Dental and Oral Surgery and became incorporated into Columbia University. The College’s mission has evolved into a tripartite commitment to education, patient care, and research. The mission of the College of Dental Medicine is to train general dentists, dental specialists, and dental assistants in a setting that emphasizes comprehensive dental care delivery and stimulates professional growth; inspire, support, and promote faculty, pre- and postdoctoral student, and hospital resident participation in research to advance the professional knowledge base; and provide comprehensive dental care for the underserved community of northern Manhattan. For more information, please visit dental.columbia.edu.

The Columbia University Medical Center provides international leadership in basic, pre-clinical and clinical research, in medical and health sciences education, and in patient care. The medical center trains future leaders and includes the dedicated work of many physicians, scientists, public health professionals, dentists, and nurses at the College of Physicians & Surgeons, the Mailman School of Public Health, the College of Dental Medicine, the School of Nursing, the biomedical departments of the Graduate School of Arts and Sciences, and allied research centers and institutions.

Established in 1767, Columbia’s College of Physicians & Surgeons was the first institution in the country to grant the M.D. degree and is among the most selective medical schools in the country. Columbia University Medical Center is home to the largest medical research enterprise in New York City and state and one of the largest in the United States.

For more information, please visit www.canc.cmb.ac.edu.

Domestic violence survivors

According to the American Psychological Association, nearly one in three adult women experience at least one domestic assault by a partner during adulthood, which translates into approximately 4 million American women who experience domestic violence during a 12-month period.

As a dentist in Kalamazoo, Mich., Brett Magnuson, DDS, performs a spectrum of procedures designed to give his patients a fresh start in life. In cooperation with the American Academy of Cosmetic Dentistry (AACD), Magnuson dedicates his time and cosmetic dentistry expertise to give back a smile (GBAS) program, which provides free consultations and dental treatments for survivors of domestic violence.

The need is great for those affected by domestic violence, says Magnuson. “Through the Give Back a Smile program, AACD members like me assist those in need by treating any dental injuries sustained from domestic violence,” he says. “The AACD and I remain dedicated to helping these patients reclaim their smiles, their self-esteem, and ultimately, their lives.”

Victims of domestic violence who have suffered dental injuries can contact GRAS toll-free at (800) 775-GRAS (4227), or visit www.givebackasmile.com for more information. Survivors of domestic violence must make an appointment with a counselor, domestic violence advocate, social worker, or therapist to complete the advocate section of the GBAS application.

GBAS then reviews the application and turns it over to the dentists. If eligible, the AACD connects the survivor with a local GRAS volunteer who provides treatment at no charge to the recipient.